



SDMS Doc ID 2025714



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

January 2, 2003

Anthony D. Pantaleoni, Ph.D.  
Vice President, Environmental Health & Safety  
Crane Co.  
100 First Stamford Place, Suite 400  
Stamford, Connecticut 06902-6784

Subject: Unilateral Administrative Order 9-2003-01  
Phoenix Goodyear Airport (PGA) North Superfund Site

*Tony*  
Dear Mr. Pantaleoni:

Attached is a Unilateral Administrative Order ("Order") issued by the U.S. Environmental Protection Agency ("EPA") to Unidynamics-Phoenix, Inc. ("Unidynamics") to conduct the remedial design and remedial action in the vadose zone at the northern portion of the Phoenix-Goodyear Airport ("PGA") Superfund site ("PGA-North"). This Order directs Unidynamics to design and operate the PGA-North soil vapor extraction ("SVE") system with granular-activated carbon, as required pursuant to EPA's 1989 Record of Decision ("ROD") and 2002 Explanation of Significant Differences ("ESD"), and to reimburse EPA for its oversight costs.

Because Unidynamics has previously been offered the opportunity to conduct this work, Unidynamics must inform EPA whether it will comply with this Order within 5 days of its effective date. See Order §VII. The Order provides Unidynamics with the opportunity to confer with EPA regarding compliance with and implementation of the Order. See Order §XXIX. Should you wish to arrange such a conference with EPA, please contact the Remedial Project Manager, James Sickles, at (415) 972-3265. All legal questions regarding this Order should be directed to Bethany Dreyfus, at (415) 972-3886.

Sincerely,

A handwritten signature in black ink, appearing to read "Deborah Jordan", is written over the word "Sincerely,".

Deborah Jordan, Ph.D.  
Chief, Federal Facilities and Site Cleanup Branch  
Superfund Division

Attachment

cc: See next page

cc: Lou Minkler, ADEQ  
Larry Meier, ADEQ  
Al Bilzi, Environmental Ventures, Inc.  
Elizabeth Nixon, Geomatrix  
Laurie LaPat, Ph.D., Geomatrix  
Gordon Stephenson, Allen Stephenson Assoc.  
Bill Schulz, Park Shadows Country Homes  
Dave Becker, USACE  
Chuck Coyle, USACE  
Ruben Veloz, City of Goodyear  
Joel Wade, City of Goodyear  
Jerry Ellsworth, SunCor  
Matthew Garlick, LPSCO  
Glenn Bruck, EPA  
James Sickles, EPA  
Andria Benner, EPA  
Phil Whitmore, CH2M Hill  
Bethany Dreyfus, Esq., EPA  
Thomas J. Ungerland, Esq., Crane Co.  
Roger Ferland, Esq., Quarles & Brady Striech Lang

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION IX

IN THE MATTER OF:	)	
	)	ADMINISTRATIVE ORDER
PHOENIX-GOODYEAR AIRPORT	)	FOR REMEDIAL DESIGN
NORTH SUPERFUND SITE,	)	AND REMEDIAL ACTION
GOODYEAR, ARIZONA	)	
	)	U.S. EPA Region IX
UNIDYNAMICS-PHOENIX, INC.,	)	
Respondent.	)	Docket No. CERCLA-9-2003-0001
	)	
Proceeding under Section 106(a) of the	)	
Comprehensive Environmental Response,	)	
Compensation, and Liability Act,	)	
as amended, 42 U.S.C. §9606(a).	)	

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ADMINISTRATIVE ORDER  
FOR REMEDIAL DESIGN AND REMEDIAL ACTION

I. INTRODUCTION AND JURISDICTION

1. This Administrative Order ("Order") directs Unidynamics-Phoenix, Incorporated ("Unidynamics" or "Respondent") to prepare and perform at the Phoenix-Goodyear Airport ("PGA") Superfund Site ("Site") a remedial design for the soil vapor remedy described in the Record of Decision for the Phoenix-Goodyear Airport Superfund Site, dated September 26, 1989, and in the Explanation of Significant Differences, dated September 19, 2002, to implement that design through remedial action, and to reimburse EPA for all costs incurred by the United States Environmental Protection Agency ("EPA") in connection with this work.

2. This Order is issued by EPA pursuant to the authority vested in the President of the United States by section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9606(a), as amended ("CERCLA"), and delegated to the Administrator of the EPA by Executive Order No. 12580, January 23, 1987, 52 Fed. Reg. 2923, as amended by Executive Order No. 13016, August 30, 1996, 61 Fed. Reg. 45871, further delegated to the EPA Regional Administrators by EPA Delegation Number 14-B and further delegated through the Superfund Division Director to the Branch Chief by Regional Delegation Number R9 1290.14A, dated November 16, 2001.

3. In issuing this Order, the objectives of EPA are: (a) to prevent, mitigate or otherwise respond to or remedy any release or threatened release of hazardous substances, pollutants or contaminants at or from the Site; and (b) to recover response and oversight costs incurred by the United States with respect to this Order.

## II. FINDINGS OF FACT

1. The PGA Superfund Site is located in the western part of the Salt River Valley in Goodyear, Arizona. The PGA Site is divided into a northern and a southern portion along Yuma Road. The southern portion of the PGA Site was never owned or operated by Unidynamics and is not addressed by this Order, except to the extent that the southern portion of the PGA Site is impacted by Unidynamics' disposal of hazardous substances. The northern portion of the PGA Site is referred to as "PGA-North."

2. PGA-North contains a 24-acre facility located at 102 South Litchfield Road in Goodyear, Arizona, which is owned and operated by Unidynamics. Land uses surrounding the Unidynamics property are agricultural, industrial, residential and recreational. Recent population growth in the area has increased the residential and recreational use of the area around the Unidynamics property, in particular to the north and the southeast. To the immediate north of the Unidynamics property is an emergency health care facility and city offices, to the east is a motel, and to the

facility's southeast is a residential development, Park Shadows Country Homes, which houses approximately 450 residents.

3. From 1963 until the late 1980's, Unidynamics designed, developed and supplied custom-designed component systems for defense and aerospace systems at PGA-North. Manufacturing conducted on the plant property included machining and assembly of both mechanical and electrical components. As part of these operations, hazardous substances, including but not limited to trichloroethylene ("TCE"), were disposed of at PGA-North by Unidynamics. In 1985, Unidynamics was purchased and became a wholly-owned subsidiary of Crane Company. In 1994, Crane Company sold Unidynamics' operations to Pacific Scientific, Inc., and those operations were moved to Chandler, Arizona in that year. Since 1994, the Unidynamics facility has been fenced and vacant.

4. Hazardous substances released from Unidynamics' facility continue to move downward from the surface, through the soil, contaminating groundwater beneath Unidynamics' facility. Contamination has migrated from the Unidynamics facility leaving a plume of TCE-contaminated groundwater approximately two-and-a-half miles long in portions of the area's aquifer designated as Subunit A and of undetermined extent in the aquifer's Subunit B/C. Although levels of contamination are generally higher in Subunit A, contamination levels in Subunit B/C continue to rise. Groundwater in Subunit C of the regional aquifer at PGA-North is used as a drinking water supply for the residents of the City of Goodyear.

5. On September 8, 1983, pursuant to section 105 of CERCLA, 42 U.S.C. § 9605, EPA listed the PGA Site on the National Priorities List ("NPL"), set forth at 40 CFR Part 300, Appendix B. (48 Fed. Reg. 40658). The Site was originally listed as Litchfield Airport Area.

6. From 1984 to 1989, under an EPA Unilateral Administrative Order, Unidynamics undertook a remedial investigation and feasibility study ("RI/FS") at PGA-North, pursuant to

CERCLA and the National Contingency Plan ("NCP"), 40 CFR Part 300. Following public notice of the availability of the FS and the proposed plan for remedial action at the Site, EPA provided an opportunity for public comment on the proposed remedial action. On September 26, 1989, EPA executed a Record of Decision ("ROD") which selected the remedial action to be taken at the Site based upon the findings in the RI/FS.

7. The contaminants of concern identified at PGA-North in the RI/FS include TCE, 1,1,1-trichloroethane ("TCA"), methyl-ethyl-ketone ("MEK"), and acetone. The remedy selected in the ROD to address these contaminants includes a pump and treat system for groundwater contamination and a soil vapor extraction ("SVE") system with granular activated carbon ("GAC") air emissions treatment to address contamination in the vadose zone.

8. The ROD provides that the vadose zone remedy is to operate until EPA is satisfied that the contaminants in the soil gas are at levels that will no longer cause or contribute to the contamination of the groundwater in levels above the cleanup standards.

9. In October 1990, EPA issued an amended Unilateral Administrative Order ("1990 UAO") to Unidynamics to conduct remedial design and remedial action, as set forth in the ROD, until performance standards at PGA-North are met.

10. During the 1990's, pursuant to the 1990 UAO, Unidynamics constructed a groundwater pump and treat system and an SVE system. The groundwater pump and treat system continues to operate and is currently undergoing review by EPA to determine whether it is functioning effectively to contain PGA-North groundwater contamination.

11. In 1992, EPA issued an ESD ("1992 ESD") which, in part, altered the SVE system for the PGA-North remedy. The ROD required use of an SVE system with GAC. In order to avoid potential combustibility with MEK and acetone, and to avoid the cost of carbon disposal, EPA

allowed for operation of the SVE system with thermal oxidation as its air emissions treatment component. Following system design, in 1994 Unidynamics constructed the SVE system and began its operation. By the late 1990's, however, the thermal oxidation unit on the SVE system was suffering from significant deferred maintenance and malfunctions. The SVE system at PGA-North, which had functioned intermittently since 1994, was shut down in 1998. Due to community concerns regarding potential dioxin emissions from the thermal oxidation unit, EPA did not require Unidynamics to restart the SVE system with thermal oxidation at that time.

12. In June 2002, EPA tested the soil gas for levels of residual contamination. The level of residual TCE was found to be as high as 6,400 parts per billion volume (ppbv) at a depth of 50 feet, 3,100 ppbv at a depth of 40 feet and 980 ppbv at a depth of 30 feet. There was no residual MEK or acetone found to be remaining in the soil gas. The TCE levels indicate that contamination in the soil gas could continue to impact groundwater. Additionally, soil gas contamination at the Site may be migrating laterally toward and potentially into the buildings at the perimeter of the Unidynamics property.

13. Due to the remaining high levels of TCE in the soil gas and the non-detection of MEK and acetone, in September 2002, EPA issued another Explanation of Significant Differences ("2002 ESD") regarding the PGA-North SVE remedy. The 2002 ESD provided that the SVE system be re-configured and restarted with GAC as its air emissions treatment.

14. Levels of residual TCE in the soil gas are high enough to continue causing and contributing to contamination of groundwater and are high enough to cause concern regarding the potential to migrate beyond the Unidynamics facility.

### III. CONCLUSIONS OF LAW AND DETERMINATIONS

1. The Site is a "facility" as defined in section 101(9) of CERCLA, 42 U.S.C. § 9601(9).



2. Respondent is a "person" as defined in section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
3. Respondent owned and operated the Unidynamics facility during a period of time when hazardous substances were disposed there and is therefore a "liable" party as defined in section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is subject to this Order under section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
4. TCE and TCA, as listed in Section II, Paragraph 7 of this Order, are found at the Site and are "hazardous substances" as defined in section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
5. These substances have been released into the soil and groundwater at the Site and threaten to continue to be released.
6. The past disposal and migration of hazardous substances at the Site constitutes a "release" as defined in section 101(22) of CERCLA, 42 U.S.C. section 9601(22).
7. The potential for future migration of hazardous substances from the Site poses a threat of a "release" as defined in section 101(22) of CERCLA, 42 U.S.C. § 9601(22).
8. The actual or threatened release of one or more hazardous substances from the facility may present an imminent and substantial endangerment to the public health or welfare or the environment under section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
9. The contamination and endangerment at this Site constitute an indivisible injury. The actions required by this Order are necessary to protect the public health, welfare, and the environment, and are consistent with the NCP and CERCLA.

#### IV. NOTICE TO THE STATE

1. On November 6, 2002, prior to issuing this Order, EPA notified the Arizona Department of Environmental Quality ("ADEQ") that EPA would be issuing this Order.

#### V. ORDER

1. Based on the foregoing, Respondent is hereby ordered to comply with the following provisions, including but not limited to all attachments to this Order, all documents incorporated by reference into this Order, and all schedules and deadlines in this Order, attached to this Order, or incorporated by reference into this Order.

#### VI. DEFINITIONS

1. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Order or in documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 et seq.

"Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the end of the next working day.

"Deliverable" shall mean any plan, report, document or any other item required of the Respondent under this Order.

"EPA" shall mean the United States Environmental Protection Agency.

"National Contingency Plan" or "NCP" shall mean the National Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 CFR Part 300, including any amendments thereto.

"Operation and Maintenance" or "O&M" shall mean all activities required under the Operation and Maintenance Plan developed by Respondent pursuant to this Order and Section A6. of the Statement of Work, and approved by EPA.

"Paragraph" shall mean a portion of this Order identified by an arabic numeral.

"Performance Standards" shall mean those cleanup standards, standards of control, and other substantive requirements, criteria or limitations, identified in the Record of Decision, ESDs and Statement of Work, that the Remedial Action and Work required by this Order must attain and maintain.

"PGA-North" shall mean the northern portion of the Phoenix-Goodyear Airport Superfund site associated with the contamination originating at the Unidynamics facility.

"Record of Decision" or "ROD" shall mean the EPA Record of Decision relating to the Site, signed on September 26, 1989, by the Regional Administrator, EPA Region IX, and all attachments thereto.

"Remedial Action" or "RA" shall mean those activities, except for Operation and Maintenance, to be undertaken by Respondent to implement the final plans and specifications submitted by Respondent pursuant to the Remedial Design Work Plan approved by EPA, including any additional activities required under Sections IX through XIV of this Order.

"Remedial Design" or "RD" shall mean those activities to be undertaken by Respondent to develop the final plans and specifications for the Remedial Action pursuant to the Remedial Design Work Plan.

"Response Costs" shall mean all costs, including direct costs, indirect costs, and accrued interest incurred by the United States to perform or support response actions at PGA-North. Response costs include but are not limited to the costs of overseeing the Work, such as the costs of reviewing or developing plans, reports and other items pursuant to this Order and costs associated with verifying the Work.

"Statement of Work" or "SOW" shall mean the statement of work for implementation of the SVE remedy as set forth in Attachment 1 to this Order. The SOW is incorporated into this Order and is an enforceable part of this Order.

"Section" shall mean a portion of this Order identified by a roman numeral and includes one or more Paragraphs.

"Site" shall mean the Phoenix-Goodyear Airport Superfund site, as described in the NPL listing at 48 Federal Register 40658 (September 8, 1983).

"State" shall mean the State of Arizona Department of Environmental Quality.

"United States" shall mean the United States of America.

"Work" shall mean all activities Respondent is required to perform under this Order to implement the soil gas remedy of the ROD, including remedial design, construction, operation and maintenance, and any activities required to be undertaken pursuant to Section XII

(Modifications of the Work Plans) and Section XIII (Additional Work) of this Order.

#### VII. NOTICE OF INTENT TO COMPLY

1. Respondent shall provide, not later than five (5) days after the Effective Date of this Order, written notice to EPA's Remedial Project Manager ("RPM") stating whether it will comply with the terms of this Order. If Respondent does not unequivocally commit to perform the Work as provided by this Order, it shall be deemed to have violated this Order and to have failed or refused to comply with this Order. Respondent's written notice shall describe, using facts that exist on or prior to the effective date of this Order, any "sufficient cause" defenses asserted by Respondent under sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. § 9606(b) and § 9607(c)(3). The absence of a response by EPA to the notice required by this Paragraph shall not be deemed to be acceptance of Respondent's assertions.

#### VIII. PARTIES BOUND

1. This Order shall apply to and be binding upon Respondent and upon its directors, officers, employees, agents, successors, and assigns. Respondent is jointly and severally responsible for carrying out all activities required by this Order. No change in the ownership, corporate status, or other control of any of the entities referenced in this Paragraph shall alter any of Respondent's responsibilities under this Order.
2. Respondent shall provide a copy of this Order to any prospective owners or successors before a controlling interest in Respondent's assets, property rights, or stock are transferred to the prospective owner or successor. Respondent shall provide a copy of this Order to each contractor, sub-contractor, laboratory, or consultant retained to perform any Work under this Order, within five (5) days after the effective date of this Order or on the date such services are retained, whichever date occurs later. Respondent shall also provide a copy of this Order to each person representing Respondent with respect to the Site or the Work and shall condition all contracts and subcontracts entered into hereunder upon performance of the Work in conformity

with the terms of this Order. With regard to the activities undertaken pursuant to this Order, each contractor and subcontractor shall be deemed to be related by contract to Respondent within the meaning of section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract, Respondent is responsible for compliance with this Order and for ensuring that its contractors, subcontractors and agents comply with this Order and perform any Work in accordance with this Order.

3. Within five (5) days after the effective date of this Order, Respondent shall record a copy or copies of this Order in the appropriate governmental office where land ownership and transfer records are filed or recorded. Respondent shall, within fifteen (15) days after the effective date of this Order, send notice of such recording to EPA.

4. Not later than sixty (60) days prior to any transfer of any real property interest in any property included within the Site, Respondent shall submit a true and correct copy of the transfer documents to EPA and shall identify the transferee by name, principal business address and effective date of the transfer.

#### IX. WORK TO BE PERFORMED

1. Respondent shall cooperate with EPA in providing information regarding the Work to the public. As requested by EPA, Respondent shall participate in the preparation of such information for distribution to the public and in public meetings which may be held or sponsored by EPA to explain activities at or relating to the Site.

2. All aspects of the Work to be performed by Respondent pursuant to this Order shall be under the direction and supervision of a qualified project manager the selection of which shall be subject to approval by EPA. Within fifteen (15) days after the effective date of this Order, Respondent shall notify EPA in writing of the name and qualifications of the project manager, including primary support entities and staff, proposed to be used in carrying out Work under this

Order. If at any time Respondent proposes to use a different project manager, Respondent shall notify EPA and shall obtain approval from EPA before the new project manager performs any Work under this Order.

3. EPA will review Respondent's selection of a project manager according to the terms of this Paragraph and Section XVI of this Order. If EPA disapproves of the selection of the project manager, Respondent shall submit to EPA within fifteen (15) days after receipt of EPA's disapproval of the project manager previously selected, a list of project managers, including primary support entities and staff, that would be acceptable to Respondent. EPA will thereafter provide written notice to Respondent of the names of the project managers that are acceptable to EPA. Respondent may then select any approved project manager from that list and shall notify EPA of the name of the project manager selected within twenty-one (21) days of EPA's designation of approved project managers.

4. Respondent shall conduct activities and submit deliverables as provided by the attached Statement of Work. All such Work shall be conducted in accordance with CERCLA, the NCP, and EPA guidance referenced in the Statement of Work, as may be amended or modified by EPA. The general activities that Respondent is required to perform are identified below in the list of deliverables. The tasks that Respondent must perform are described more fully in the Statement of Work and guidances. The activities and deliverables identified below shall be developed as provided in the Statement of Work, and shall be submitted to EPA as provided. All work performed under this Order shall be in accordance with the schedules herein and in full accordance with the standards, specifications, and other requirements of the Statement of Work, as initially approved or modified by EPA, and as may be amended or modified by EPA from time to time.

A. SVE System Redesign

1. Within thirty (30) days of the Effective Date of this Order, Respondent shall submit a work plan for the redesign of the SVE system ("SVE Redesign Work Plan") to EPA for review and approval. The SVE Redesign Work Plan shall include a step-by-step plan for implementation of the work required in Task 1 in the Statement of Work and for attaining and maintaining all requirements, including Performance Standards, identified in the ROD and 2002 ESD. The SVE Redesign Work Plan must describe in detail the tasks and deliverables Respondent will complete during the SVE Redesign phase according to the schedule provided in the Statement of Work. The major tasks and deliverables described in the SVE Redesign Work Plan shall include, but not be limited to, the following: (1) design criteria for reconfiguring the current SVE system for GAC air emissions treatment; (2) a description of the existing facilities that will be used as part of the redesigned SVE system; (3) a description of all organizations and key personnel involved with SVE startup; (4) a list of all permits, property leases, easements required for system restart and operation; (5) a design sampling and analysis plan ("SAP"); (6) a Quality Assurance Plan ("QAPP"); and (6) a schedule for initiation and completion for each activity required by this Order and the Statement of Work. Respondent shall also, within thirty (30) days after the Effective Date of this Order, prepare and submit to EPA for review, a Site Health and Safety Plan for field design activities. The Site Health and Safety Plan shall conform to the applicable Occupational Safety and Health Administration and EPA requirements, including but not limited to those found at 54 Fed. Reg. 9294.

2. The SVE Redesign Work Plan shall be consistent with, and shall provide for implementing the Statement of Work, and shall comport with EPA's "Superfund Remedial Design and Remedial Action Guidance, OSWER Directive 9355.0-4A." Upon approval by EPA, the SVE Redesign Work Plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.



3. Upon approval of the SVE Redesign Work Plan by EPA, Respondent shall implement the SVE Redesign Work Plan according to the schedule in the approved SVE Redesign Work Plan. Any violation of the approved SVE Redesign Work Plan shall be a violation of this Order. Unless otherwise directed by EPA, Respondent shall not perform further Work at the Site prior to EPA's written approval of the SVE Redesign Work Plan.

B. Field Investigation

Not later than twenty-one (21) days after EPA approves all deliverables required as part of the SVE Redesign Work Plan, Respondent shall begin Field Activities as specified in Task 2 of the SOW and in the SVE Redesign Work Plan.

C. SVE Start-up and Operations and Maintenance

1. Within forty-five (45) days of the completion of the Field Investigation, Respondent shall submit an SVE Start-up and Operations and Maintenance Plan ("SVE Start-up and O & M Plan") to EPA for review and approval. The SVE Start-up and O & M Plan shall include a step-by-step plan for implementation of the SVE system as required in Tasks 3 and 4 of the Statement of Work and for attaining and maintaining all requirements, including Performance Standards, identified in the ROD and 2002 ESD. The SVE Start-up and O & M Plan must describe in detail the tasks and deliverables Respondent will complete during the SVE Start-up phase according to the schedule provided in that Plan. The major tasks and deliverables described in the SVE Start-up and O & M Plan shall include, but not be limited to, the following: (1) description of the contaminants of concern and distribution of those contaminants in Site soils based on data obtained during Field Investigation; (2) a description of engineering design and specifications for the SVE system using GAC; (3) a description of well specifications for SVE and monitor wells; (4) Construction Quality Control Plan ("CQAP"); (5) an SVE startup and operation and maintenance ("O&M") plan; (6) an SVE performance and compliance monitoring plan; (6) a data quality and data management plan; (7) an SVE system shut-down plan; and (8) a Site Health and Safety Plan which conforms to the applicable Occupational Safety and Health

Administration and EPA requirements, including but not limited to those found at 54 Fed. Reg. 9294.

2. Upon approval by EPA, the SVE Start-up and O & M Plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.

3. Upon approval of the SVE Start-up and O & M Plan by EPA, Respondent shall implement the SVE Start-up and O & M Plan according to the schedules in the SVE Start-up and O & M Plan. Unless otherwise directed by EPA, Respondent shall not commence SVE Start-up at the Site prior to approval of the SVE Start-up and O & M Plan.

4. Within fifteen (15) days after EPA approves the SVE Start-up and O & M Plan, Respondent shall notify EPA in writing of the name, title, and qualifications of any construction contractor proposed to be used in carrying out work under this Order. EPA shall thereafter provide written notice of the name(s) of the contractor(s) it approves, if any. Respondent may select any approved contractor from that list and shall notify EPA of the name of the contractor selected within twenty-one (21) days of EPA's designation of approved contractors. If at any time Respondent proposes to change the construction contractor, Respondent shall notify EPA and shall obtain approval from EPA as provided in this paragraph, before the new construction contractor performs any work under this Order. If EPA disapproves of the selection of any contractor as the construction contractor, Respondent shall submit to EPA a list of contractors that would be acceptable to Respondent within thirty (30) days after receipt of EPA's disapproval of the contractor previously selected.

#### D. Reporting

1. Respondent shall submit a written progress report to EPA concerning actions undertaken pursuant to this Order every quarter following the date of receipt of EPA's

approval of the SVE Redesign Work Plan until termination of this Order, unless otherwise directed in writing by the RPM. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

2. Respondent shall submit three (3) copies of all plans, reports or other submissions required by this Order, the Statement of Work, or any approved Work Plan. Upon request by EPA, Respondent shall submit such documents in electronic form.

3. Within thirty (30) days after completion of all Work required by this Order, Respondent shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Order. The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Order, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

5. The Work performed by Respondent pursuant to this Order shall, at a minimum, achieve the Performance Standards specified in the Record of Decision and 2002 ESD.

6. Notwithstanding any action by EPA, Respondent remains fully responsible for achievement of the Performance Standards in the ROD, 2002 ESD and Statement of Work.

Nothing in this Order, or in the Statement of Work, or in EPA's approval of the Work Plans, or approval of any other submission, shall be deemed to constitute a warranty or representation of any kind by EPA that full performance of the Remedial Design or Remedial Action will achieve the Performance Standards set forth in the ROD and 2002 ESD. Respondent's compliance with such approved documents does not foreclose EPA from seeking additional work to achieve the applicable performance standards.

7. Respondent shall perform each approved Work Plan according to the schedule provided therein.

8. Respondent shall not commence or undertake any Work at the Site without prior EPA approval.

9. Neither failure of EPA to expressly approve or disapprove of Respondent's submissions within any time period, nor the absence of comments, shall be construed as approval by EPA. Whether or not EPA gives express approval for Respondent's deliverables, Respondent is responsible for preparing deliverables acceptable to EPA.

10. Respondent shall, prior to any off-site shipment of hazardous substances from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving state and to EPA's RPM of such shipment of hazardous substances. However, the notification of shipments shall not apply to any such off-site shipments when the total volume of such shipments will not exceed 10 cubic yards.

A. The notification shall be in writing, and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped; (3) the expected schedule for the shipment of the hazardous substances; and (4) the method of

transportation. Respondent shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state, or to a facility in another state.

B. The identity of the receiving facility and state will be determined by Respondent following the award of the contract for any phase of the Work. Respondent shall provide all relevant information, including information under the categories noted in Subparagraph (a) above, on the off-site shipments, as soon as practical after the award of the contract and before the hazardous substances are actually shipped.

11. Within thirty (30) days after Respondent concludes that the Remedial Action has been fully performed, Respondent shall so notify EPA and shall schedule and conduct a pre-certification inspection to be attended by Respondent and EPA. The pre-certification inspection shall be followed by a written report submitted within thirty (30) days of the inspection by a registered professional engineer and Respondent's Project Coordinator certifying that the Remedial Action has been completed in full satisfaction of the requirements of this Order. If, after completion of the pre-certification inspection and receipt and review of the written report, EPA determines that the Remedial Action or any portion thereof has not been completed in accordance with this Order, EPA shall notify Respondent in writing of the activities that must be undertaken to complete the Remedial Action and shall set forth in the notice a schedule for performance of such activities. Respondent shall perform all activities described in the notice in accordance with the specifications and schedules established therein. If EPA concludes, following the initial or any subsequent certification of completion by Respondent that the Remedial Action has been fully performed in accordance with this Order, EPA may notify Respondent that the Remedial Action has been fully performed. EPA's notification shall be based on present knowledge and Respondent's certification to EPA, and shall not limit EPA's right to perform periodic reviews pursuant to section 121(c) of CERCLA, 42 U.S.C. § 9621(c),

or to take or require any action that in the judgment of EPA is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607.

12. Within thirty (30) days after Respondent concludes that all phases of the Work have been fully performed, that the Performance Standards have been attained, and that all Operation and Maintenance activities have been completed, Respondent shall submit to EPA a written report by a registered professional engineer certifying that the Work has been completed in full satisfaction of the requirements of this Order. EPA shall require such additional activities as may be necessary to complete the Work or EPA may, based upon present knowledge and Respondent's certification to EPA, issue written notification to Respondent that the Work has been completed, as appropriate, in accordance with the procedures set forth in Section IX. Paragraph 11 for Respondent's certification of completion of the Remedial Action. EPA's notification shall not limit EPA's right to perform periodic reviews pursuant to section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of EPA is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607.

#### X. FAILURE TO ATTAIN PERFORMANCE STANDARDS

1. In the event that EPA determines that additional response activities are necessary to meet applicable Performance Standards, EPA may notify Respondent that additional response actions are necessary.

2. Unless otherwise stated by EPA, within thirty (30) days of receipt of notice from EPA that additional response activities are necessary to meet any applicable Performance Standards, Respondent shall submit for approval by EPA a work plan for the additional response activities. The plan shall conform to the applicable requirements of Sections IX, XII and XIII of this Order. Upon EPA's approval of the plan pursuant to Section XIV, Respondent shall implement the plan for additional response activities in accordance with the provisions and schedule contained therein.

## XI. EPA PERIODIC REVIEW

1. Under section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any applicable regulations, EPA may conduct a review at PGA-North to assure that the Work performed pursuant to this Order adequately protects human health and the environment. Until such time as EPA certifies completion of the Work, Respondent shall conduct the requisite studies, investigations, or other response actions as determined necessary by EPA in order to permit EPA to conduct the review under section 121(c) of CERCLA, 42 U.S.C. § 9621(c). As a result of any review performed under this paragraph, Respondent may be required to perform additional Work or modify Work already performed.

## XII. MODIFICATION OF WORK PLANS

1. In the event of conditions posing an immediate threat to human health or welfare or the environment, Respondent shall notify EPA and the State immediately. In the event of unanticipated or changed circumstances at the site, Respondent shall notify the EPA RPM by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In addition to the authorities in the NCP, in the event that EPA determines that the immediate threat or the unanticipated or changed circumstances warrant changes in a work plan, EPA will modify or amend the work plan in writing accordingly. Respondent shall perform each approved work plan as modified or amended.

## XIII. ADDITIONAL WORK

1. EPA may determine that, in addition to tasks defined in this Order and attachments hereto, additional work may be necessary to protect human health and the environment. If EPA determines that additional response activities are necessary, EPA may require Respondent to submit a work plan for additional response activities. EPA may also require that Respondent perform these response actions, including any approved modifications, if it determines that such actions are necessary to protect human health and the environment. EPA may also require Respondent to modify any plan, design, or other deliverable required by this Order. EPA reserves

the right to conduct the work itself at any point, to seek reimbursement from Respondent, and/or to seek any other appropriate relief.

2. No later than thirty (30) days after receiving EPA's notice that additional response activities are required pursuant to this Section, Respondent shall submit a work plan for the response activities to EPA for review and approval. Upon approval by EPA, the work plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order. Upon approval of the work plan by EPA, Respondent shall implement the work plan according to the standards, specifications, and schedule in the approved work plan. Respondent shall notify EPA of its intent to perform such additional response activities within seven (7) days after receipt of EPA's request for additional response activities.

#### XIV. ENDANGERMENT AND EMERGENCY RESPONSE

1. In the event of any action or occurrence during the performance of the Work which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate, or minimize the threat, and shall immediately notify EPA's RPM, or, if the RPM is unavailable, EPA's second RPM at the Site or the RPMs' section chief. If none of these persons is available, Respondent shall notify the EPA Office of Emergency Response, Region IX. Respondent shall take such action in consultation with EPA's RPM and in accordance with all applicable provisions of this Order, including but not limited to the Health and Safety Plan and the Contingency Plan. In the event that Respondent fails to take appropriate response action as required by this Section, and EPA takes that action instead, Respondent shall reimburse EPA for all costs of the response action not inconsistent with the NCP. Respondent shall pay the response costs in the manner described in Section XXIV (Reimbursement of Response Costs) of this Order, within thirty (30) days of Respondent's receipt from EPA of a demand for payment and a summary of the costs incurred.



2. Nothing in the preceding Paragraph shall be deemed to limit any authority of the United States to take, direct, or order all appropriate action to protect human health and the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances on, at, or from the Site.

#### XV. EPA REVIEW OF SUBMISSIONS

1. After review of any deliverable, plan, report or other item which is required to be submitted for review and approval pursuant to this Order, EPA may: (a) approve the submission; (b) approve the submission with modifications; (c) disapprove the submission and direct Respondent to re-submit the document after incorporating EPA's comments; or (d) disapprove the submission and assume responsibility for performing all or any part of the response action. As used in this Order, the terms "approval by EPA," "EPA approval," or a similar term means the action described in Subparagraphs (a) or (b) of this Paragraph. EPA approval shall be in writing.
2. In the event of approval or approval with modifications by EPA, Respondent shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA.
3. Upon receipt of a notice of disapproval or a request for a modification, Respondent shall, within fifteen (15) days or such longer time as specified by EPA, correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the notice of disapproval, or approval with modifications, Respondent shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission.
4. If any submission is disapproved by EPA, Respondent shall be deemed to be in violation of this Order.
5. Any reports, plans, specifications, schedules, appendices, and attachments required or established by this Order are, upon approval by EPA, incorporated into this Order.

## XVI. PROGRESS REPORTS AND MEETINGS

1. Respondent shall make presentations at, and participate in, meetings at the request of EPA during the initiation, conduct, and completion of the Work under this Order. In addition to discussion of the technical aspects of the Work, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion.
2. In addition to the deliverables set forth in this Order, Respondent shall provide to EPA in its weekly electronic e-mail updates by Thursday of each week regarding on-going field activities, and monthly progress reports with respect to actions and activities undertaken pursuant to this Order by the tenth (10<sup>th</sup>) day of the following month. At a minimum, with respect to the preceding month, the monthly progress reports shall (a) describe the actions which have been taken to comply with this Order during that month, (b) include all results of sampling and tests and all other data received by Respondent, (c) describe work planned for the next two months with schedules relating such work to the overall project schedule for the Work, and (d) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays. These reports shall not be considered a substitute for notification to EPA in the event of an occurrence requiring emergency response.

## XVII. SAMPLING AND DATA AVAILABILITY

1. All results of sampling, tests, modeling or other data (including raw data) generated by Respondent, or on Respondent's behalf, during implementation of this Order, shall be submitted to EPA in the subsequent weekly email update and monthly progress report as described in Section XVI of this Order.
2. Respondent shall use the quality assurance, quality control and chain of custody procedures described in the "*EPA NEIC Policies and Procedures Manual*," (May 1978, revised May, 1986), "*EPA Guidance for the Data Quality Objectives Process*," (EPA QA/G-4), "*EPA*

*Requirements for Quality Assurance Project Plans for Environmental Data Operations,*" (November 1999 (EPA QA/R-5)), *"Guidance for Quality Assurance Project Plans,"* (February 1988 (EPA QA/G-5)), EPA Region IX *"Sampling and Analysis Plan Guidance and Template, Version 2,"* (March 2000 (R9QA/002)), and any amendments to these documents, while conducting all sample collection and analysis activities required herein by any plan. To provide quality assurance and maintain quality control, Respondent shall:

A. Use only laboratories which have a documented Quality Assurance Program that complies with EPA guidance document EPA QA/R-5 *"EPA's Requirements for Quality Assurance Project Plans."*

B. Ensure that the laboratory used by the Respondent for analysis performs according to a method or methods deemed satisfactory to EPA, is prepared to submit all protocols to be used for analyses to EPA at least fourteen (14) days before beginning analysis (if requested), and maintains protocols according to the record preservation requirements included in Section XX.

C. Ensure that EPA personnel and EPA's authorized representatives are allowed access to the laboratory and personnel utilized by the Respondent for analysis.

3. Respondent will notify EPA not less than fourteen (14) days prior to conducting any sample collection activity or significant field events as described in any work plan or sampling and analysis plan. At EPA's verbal or written request, or the request of EPA's contractor, Respondent shall allow split or duplicate samples to be taken by EPA (or its authorized representatives) of any samples collected by Respondent in implementing this Order. Nothing herein shall be construed to limit EPA's right to take any additional samples that EPA deems necessary.

4. Respondent may assert a claim of business confidentiality covering part or all of the information submitted to EPA pursuant to the terms of this Order under 40 CFR § 2.203, provided such claim is allowed by section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). This claim shall be asserted in the manner described by 40 CFR § 2.203(b) and substantiated at the time the claim is made. Information determined to be confidential by EPA will be given the protection specified in 40 CFR Part 2. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA or the State without further notice to Respondent. Respondent shall not assert confidentiality claims with respect to any data related to PGA-North conditions, sampling, or monitoring.

#### XVIII. COMPLIANCE WITH APPLICABLE LAWS

1. All activities by Respondent pursuant to this Order shall be performed in accordance with the requirements of all federal and state laws and regulations. EPA has determined that the activities contemplated by this Order are consistent with the NCP.

2. Except as provided in section 121(e) of CERCLA and the NCP, no permit shall be required for any portion of the Work conducted entirely on-site (i.e. within the areal extent of contamination or in very close proximity of the contamination and necessary for implementation of the Work). Where any portion of the Work requires a federal or state permit or approval, Respondent shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

3. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

#### XIX. ACCESS

1. Respondent shall allow EPA and its authorized representatives and contractors to enter and freely move about all property at PGA-North to which Respondent has access and which is

subject to or affected by the Work under this Order or where documents required to be prepared or maintained by the Order are located, for the following purposes: inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Work or Respondent and its representatives or contractors pursuant to this Order; reviewing the progress of Respondent in carrying out the terms of this Order; conducting tests as EPA or its authorized representatives or contractors deem necessary; using a camera, sound recording device or other documentary-type equipment; and verifying the data submitted to EPA by Respondent. Respondent shall allow EPA and its authorized representatives to enter any property within the PGA-North area to which Respondent has access, to inspect and copy all records, files, photographs, documents, sampling and monitoring data, and other writings related to Work undertaken in carrying out this Order. Nothing herein shall be interpreted as limiting or affecting EPA's right of entry or inspection authority under Federal law.

2. To the extent that access to any portion of PGA-North or any other property, owned or controlled by persons other than Respondent is necessary in order to perform the Work required by this Order, Respondent will obtain, or use its best efforts to obtain, site access agreements with owners of property where the Work must be performed within thirty (30) days of the effective date of this Order. Should access to such property become necessary in the course of performing Work, Respondent will obtain, or use its best efforts to obtain, site access agreements within thirty (30) days after it becomes apparent that such access is necessary. Such agreements shall provide access for EPA, its contractors and oversight officials, the state and its contractors, and Respondent or its authorized representatives, and such agreements shall specify that Respondent is not EPA's representative with respect to liability associated with site activities. Respondent shall save and hold harmless the United States and its officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action or other costs incurred by the United States including but not limited to attorneys fees and other expenses of litigation and settlement arising from or on account of acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors and any persons acting on its

behalf or under its control, in carrying out activities pursuant to this Order, including any claims arising from any designation of Respondent as EPA's authorized representatives under Section 104(e) of CERCLA.

3. Copies of access agreements shall be provided to EPA prior to Respondent's initiation of field activities. If access agreements are not obtained within thirty (30) days as designated in the prior paragraph, Respondent shall immediately notify EPA of its failure to obtain access. EPA may obtain access for Respondent, perform those tasks or activities with EPA contractors, or terminate the Order in the event that Respondent cannot obtain access agreements. In the event that EPA performs those tasks or activities with EPA contractors and does not terminate the Order, Respondent shall perform all other activities not requiring access to that property, and shall reimburse EPA for all costs incurred in performing such activities. Respondent additionally shall integrate the results of any such tasks undertaken by EPA into its reports and deliverables.

## XX. RECORD PRESERVATION

1. Respondent shall provide to EPA upon request, copies of all documents and information within its possession and/or control or that of its contractors or agents relating to activities at or near PGA-North or to the implementation of this Order including, but not limited to, sampling, analysis, chain of custody manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondent shall also make available to EPA for purposes of investigation, information gathering, or testimony, its employees, agents or representatives with knowledge of relevant facts concerning the performance of the Work.

2. Respondent shall preserve all records and documents in its possession that relate in any way to the Site during the conduct of this Order and for a minimum of ten (10) years after EPA provides notice that all Work required under this Order has been completed or commencement of construction of any response action, whichever is later. Respondent shall preserve and retain

copies of all documents that relate to the Site and shall instruct its contractors and agents to preserve and retain all records and documents in their possession or control that relate in any manner to the PGA Site or the Work. After this retention period, Respondent shall notify EPA at least ninety (90) days before the documents are scheduled to be destroyed. If EPA requests that the documents be saved, Respondent shall, at no cost to EPA, deliver the documents or copies of the documents to EPA.

3. Within forty-five (45) days after the effective date of this Order, Respondent shall submit a written certification to EPA's RPM that it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information relating to its potential liability with regard to the PGA Site since notification of potential liability with regard to PGA-North.

#### XXI. REMEDIAL PROJECT MANAGER

1. All communications, whether written or oral, from Respondent to EPA shall be directed to EPA's RPM. Respondent shall submit to EPA three copies of all documents, including plans, reports, and other correspondence, which are developed pursuant to this Order, and shall send these documents by certified mail, return receipt requested or overnight delivery. Documents which Respondent has in electronic form shall also be sent by electronic mail.

EPA's RPM for purposes of this Order is:

James Sickles  
75 Hawthorne Street SFD 8-2  
San Francisco, CA 94105  
(415) 972-3265  
[Sickles.James@epa.gov](mailto:Sickles.James@epa.gov)

One or more copies of each deliverable shall also be sent to EPA's contractors, as specified by EPA's RPM.

2. EPA has the unreviewable right to change its RPM. If EPA changes its RPM, EPA will inform Respondent in writing of the name, address, and telephone number of the new RPM.
3. EPA's RPM shall have the authority lawfully vested in a RPM and an On-Scene Coordinator ("OSC") by the National Contingency Plan, 40 CFR Part 300. EPA's RPM shall have authority, consistent with the National Contingency Plan, to halt any work required by this Order, and to take any necessary response action.
4. Within ten (10) days after the effective date of this Order, Respondent shall designate a Project Coordinator and shall submit the name, address, and telephone number of the Project Coordinator to EPA for review and approval. Respondent's Project Coordinator shall be responsible for overseeing Respondent's implementation of this Order. If Respondent wishes to change his/her Project Coordinator, Respondent shall provide written notice to EPA, five (5) days prior to changing the Project Coordinator, of the name and qualifications of the new Project Coordinator. Respondent's selection of a Project Coordinator shall be subject to EPA approval.

## XXII. DELAY IN PERFORMANCE

1. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondent under the terms of this Section shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondent's obligations to fully perform all obligations under the terms and conditions of this Order.
2. Respondent shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to EPA's RPM within forty-eight (48) hours after Respondent first knew or should have known that a delay might occur. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within five (5) business days after notifying EPA by telephone, Respondent shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why Respondent



should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. EPA may, in its sole and unreviewable discretion, grant an extension of any schedule for good cause shown. Increased costs or expenses associated with implementation of the activities called for in this Order are not a justification for any delay in performance.

### XXIII. ASSURANCE OF ABILITY TO COMPLETE WORK

1. Within sixty (60) days after the effective date of this Order, Respondent shall demonstrate the ability to complete the Work required in this Order and to pay all claims that arise from the performance of such Work. Within thirty (30) days of EPA approval of any subsequent Work Plan for any response action under this Order, Respondent shall demonstrate its ability to complete the Work specified by the Work Plan and to pay all claims that arise from the performance of such Work. Respondent shall demonstrate the ability to complete Work by obtaining and presenting to EPA one of the following: (1) a performance bond; (2) a letter of credit; (3) a guarantee by a third party; or (4) internal financial information to allow EPA to determine that Respondent has sufficient assets available to perform the Work. Respondent shall demonstrate financial assurance in an amount no less than \$700,000, and, in the case of any future Work Plan, the estimate of cost for the response action described in that Work Plan. If Respondent seeks to demonstrate ability to complete the response action by means of internal financial information, or by guarantee of a third party, it shall re-submit such information annually, on the anniversary date of the issuance of this Order. If EPA determines that such financial information is inadequate, Respondent shall, within thirty (30) days after receipt of EPA's notice of determination, obtain and present to EPA for approval one of the other three forms of financial assurance listed above.

2. At least seven (7) days prior to commencing any Work at the Site pursuant to this Order, Respondent shall submit to EPA a certification that Respondent or its contractors and

subcontractors have adequate insurance coverage or have indemnification for liabilities for injuries or damages to persons or property which may result from the activities to be conducted by or on behalf of Respondent pursuant to this Order. Respondent shall ensure that such insurance or indemnification is maintained for the duration of the Work required by this Order.

#### XXIV. REIMBURSEMENT OF RESPONSE COSTS

1. Respondent shall reimburse EPA, upon written demand, for all response costs incurred by the United States in overseeing Respondent's implementation of the requirements of this Order or in performing any response action which Respondent fails to perform in compliance with this Order. Response costs are all costs including, but not limited to, direct and indirect costs and interest, that the EPA incurs in overseeing Respondent's implementation of the requirements of this Order, including development of this Order, reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order or in performing any response action which Respondent fails to perform in compliance with this Order.

2. Respondent shall, within thirty (30) days of receipt of each bill, remit a certified or cashier's check for the amount of those costs. Interest shall accrue from the later of the date that payment of a specified amount is demanded in writing or the date of the expenditure. The interest rate is the rate established by the Department of the Treasury pursuant to 31 U.S.C. § 3717 and 4 CFR § 102.13.

3. For payments described in this Section, Respondent shall remit a check made payable to the Hazardous Substances Superfund and shall include a reference to the PGA-North Superfund Site, the Site identification number (AZD980695902), the Site account number (9T-R8), and the title of this Order. Respondent shall send such checks to:

U.S. Environmental Protection Agency  
Attention: Superfund Accounting  
P.O. Box 360863M  
Pittsburgh, PA 15251

4. Respondent shall simultaneously transmit a copy of the check to the EPA RPM.

5. In the event that the payments for response costs are not made as required above, Respondent shall pay interest on the unpaid balance. Interest is established at the rate specified in section 107(a) of CERCLA. Interest shall accrue at the rate specified through the date of the payment. Payments of interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section.

#### XXV. UNITED STATES NOT LIABLE

1. The United States, by issuance of this Order, assumes no liability for any injuries or damages to persons or property resulting from acts or omissions by Respondent, or its directors, officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order. Neither EPA nor the United States may be deemed to be a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order.

#### XXVI. ENFORCEMENT AND RESERVATIONS

1. EPA reserves the right to bring an action against Respondent under section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States and

not reimbursed by Respondent. This reservation shall include but not be limited to past costs, direct costs, indirect costs, the costs of oversight, the costs of compiling the cost documentation to support oversight cost demand, as well as accrued interest as provided in section 107(a) of CERCLA.

2. Notwithstanding any other provision of this Order, at any time during the response action, EPA may perform its own studies, complete the response action (or any portion of the response action) as provided in CERCLA and the NCP, and seek reimbursement from Respondent for its costs, or seek any other appropriate relief.

3. Nothing in this Order shall preclude EPA from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, and/or additional remedial or removal actions as EPA may deem necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA section 106(a), 42 U.S.C. §§ 9606(a), *et seq.*, section 7003 of RCRA, 42 U.S.C. §6973, or any other applicable law. Respondent shall be liable under CERCLA section 107(a), 42 U.S.C. § 9607(a), for the costs of any such additional actions.

4. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, RCRA and any other applicable statutes or regulations.

5. Respondent shall be subject to civil penalties under section 106(b) of CERCLA, 42 U.S.C. § 9606(b), and the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, December 31, 1996, 61 Fed. Reg. 69360, of not more than \$27,500 for each day in which Respondent willfully violates, or fails or refuses to comply with this Order without sufficient cause. In addition, failure to properly provide response action under this Order, or any portion hereof, without sufficient cause, may result in liability under section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), for punitive damages in an amount at least equal to, and not more than three

(3) times, the amount of any costs incurred by the Fund as a result of such failure to take proper action.

6. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person for any liability it may have arising out of or relating in any way to the Site.

7. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated by the court's order.

#### XXVII. ADMINISTRATIVE RECORD

1. Upon request by EPA, Respondent must submit to EPA all documents related to the selection of the response action for possible inclusion in the administrative record file.

#### XXVIII. EFFECTIVE DATE AND COMPUTATION OF TIME

1. This Order shall be effective three (3) days after it is signed by the Superfund Branch Chief. All times for performance of ordered activities shall be calculated from this effective date.

#### XXIX. OPPORTUNITY TO CONFER

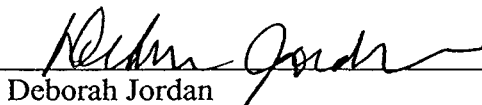
1. Respondent may, within ten (10) days after the date this Order is signed, request a conference with EPA's Superfund Division Branch Chief to discuss this Order. If requested, the conference shall occur at 75 Hawthorne Street, San Francisco, California.

2. The purpose and scope of the conference shall be limited to issues involving the implementation of the response actions required by this Order and the extent to which Respondent intends to comply with this Order. This conference is not an evidentiary hearing and does not

constitute a proceeding to challenge this Order. It does not give Respondent a right to seek review of this Order or to seek resolution of potential liability, and no official stenographic record of the conference will be made. At any conference held pursuant to Respondent's request, Respondent may appear in person or by an attorney or other representative.

3. Requests for a conference must be by telephone followed by written confirmation mailed that day to James Sickles, (415) 972-3265, U.S. EPA Region IX, 75 Hawthorne Street (SFD 8-2), San Francisco, CA 94105.

So Ordered, this 2<sup>nd</sup> day of January, 2003.

BY:   
Deborah Jordan  
Branch Chief, Superfund Division  
U.S. Environmental Protection Agency

**ATTACHMENT No. 1**  
**STATEMENT OF WORK FOR**  
**RESTARTING AND OPERATING THE**  
**SOIL VAPOR EXTRACTION SYSTEM**  
**Phoenix Goodyear Airport North Superfund Site, Goodyear, Arizona**

**1. Introduction**

This Statement of Work (SOW) describes the activities to be performed in order to restart, operate, maintain, monitor, and evaluate the soil vapor extraction (SVE) remedy described in the Record of Decision for the Phoenix-Goodyear Airport Superfund Site, dated September 26, 1989, and in the Explanation of Significant Differences, dated September 19, 2002. This SOW is Appendix A to the Administrative Order for Remedial Design and Remedial Action Docket No. CERCLA-9-2003-0001 ("Order").

**2. Description of Tasks**

**2.1 Task 1: SVE Restart-up Work Plan**

Respondent shall submit a work plan which describes the work to be implemented in accordance with this SOW. Specifically, the SVE Restart-up Work Plan shall include, but not be limited to, the following:

1. A description of how the tasks outlined in this SOW will be implemented.
2. The design criteria for reconfiguring the existing SVE system to include granular activated carbon (GAC), including the standards that will be used to evaluate the performance of the SVE system.
3. A description of the existing facilities and equipment to be used as part of the redesigned SVE system.
4. A description of the responsibility and authority of all organizations and key personnel involved with the SVE restart-up.
5. A list of all permits, property leases, easements required for restarting and operating the SVE system with GAC.
6. A list and short description of each deliverable, including progress reports, that will be submitted as part of the work required by the Order.
7. A schedule which includes the initiation and completion dates for each activity and

deliverable required by the Order and this SOW.

8. A field sampling plan and quality assurance project plan for all of the sampling activities required by the Order and this SOW.
9. A health and safety plan for all of the activities required by the Order and this SOW.

**2.2 Task 2: Collect Data Required to Redesign, Operate, Monitor, and Evaluate the SVE System.**

Prior to restarting the SVE system with GAC, Respondent shall collect data to establish current distribution of contamination in the affected area and to determine whether the design of the existing system needs to be modified and if so, determine how to appropriately redesign the existing system to be most effective. The data to be collected shall include but not be limited to the following:

1. Determine the vertical distribution of volatile organic compounds (VOCs) in the existing SVE wells and the correlation with air permeability.
2. Determine the current vertical and lateral extent of vapor phase VOCs in the affected area based on existing SVE wells and soil vapor monitoring (SVM) wells.
3. Determine necessary information regarding soil properties (i.e., air permeability, stratigraphy, moisture content, etc.).
4. Determine airflow rates, soil gas pressure levels, zone of influence, soils and air temperatures, soil moisture levels, and effluent contaminant concentrations at each of the SVE wells.

**2.3 Task 3: SVE Start-up and Operations and Maintenance (O & M) Plan**

Based on the data developed under Section 2.2 of this SOW, along with any additional relevant information and data, Respondent shall prepare a SVE Start-up and O & M Plan. The purpose of the SVE Start-up and O & M Plan is to document any modifications to the existing SVE system as a result of adding GAC or changes in site conditions, describe the steps that will be followed to restart the SVE system, describe how the SVE system will be operated and maintained, describe how the performance of the system will be monitored, describe the procedures for evaluating when cleanup goals are met, and describe the procedures for shutting down the systems. The SVE Start-up and O & M Plan shall include but not be limited to the following:

1. Description of the contaminants of concern and the distribution of contaminants in soil based on most recent data.



2. Engineering design and specifications for the SVE system with GAC.
3. Well specifications for SVE wells and -monitoring wells
4. Construction quality control plan.
5. SVE system startup, operation, and maintenance plan.
6. SVE system performance- and compliance monitoring plan .
7. Data quality and management plan.
8. SVE system shut-down plan.
9. Health and safety plan

#### **2.4 Task 4: SVE System Start-up and Operation & Maintenance**

Respondent shall restart and operate the SVE system in accordance with the EPA-approved SVE Start-up Plan.

#### **2.5 Task 5: Quarterly Performance- and Compliance Monitoring Reports**

#### **3.0 Schedule for Major Deliverables and Other Tasks**

<b>Deliverable/Task</b>	<b>Due Date</b>
SVE Restart-up Work Plan	30 days from Order Effective Date
Conduct Field Investigations	15 days from EPA Approval of Work Plan
SVE Start-up and O & M Plan	45 days after completion of Field Investigations
Start-up SVE System	28 days from EPA Approval of SVE Startup and O &M Plan